CLAIMS

1. A manufacturing method of a ceramic structure, comprising the steps of:

forming a green body, which results from mixing and kneading materials obtained as a consequence of adding a silicon metal and an organic binder to a silicon carbide powder material;

forming a formed body by molding the obtained green body;

prefiring the formed body; and

firing the formed body after prefiring by placing the formed body after prefiring on a layer formed by a refractory firing powder having the silicon metal.

2. The manufacturing method of a ceramic structure according to claim 1, wherein the refractory firing powder is formed of a ground material of another fired body obtained by use of a starting material which is substantially identical to a fired body obtained by the firing.

3. The manufacturing method of a ceramic structure according to claims 1 or 2, wherein a particle diameter of the refractory firing powder is in a range between 0.05 and 1 mm inclusive.

4. The manufacturing method of a ceramic structure according to either one of claims 1 to 3, wherein the refractory firing powder has a degree of circularity not less than 0.5, the degree of circularity defined by a formula in a flow particle image analysis, which is:

Degree of circularity = (a circumferential length of a circle having an identical area to a projected area of a particle) / (a circumferential length of a measured particle).

5. The manufacturing method for a ceramic structure according to either one of claims 1 to 4, wherein a layer formed by the refractory firing powder has a thickness not less than 1 mm.

6. The manufacturing method of a ceramic structure according to either one of claims 1 to 5, wherein a percentage composition by weight of the silicon metal of the refractory firing powder is in a range from 10% to 30%.